UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/630,572	08/03/2000	Hiroki Yoshida	44084-468	9613

7590   09/21/2005

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Washington, DC 20005-3096

EXAMINER
BAKER, CHARLOTTE M

ART UNIT	PAPER NUMBER
2626	

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.
09/630,572</td><td>Applicant(s)
YOSHIDA, HIROKI</td></tr>
<tr><td>Examiner
Charlotte M. Baker</td><td>Art Unit
2626</td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 11* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 August 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All   b)☐ Some * c)☐ None of:

   1.☒ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 1, 7, 9, and 11 have been considered but are

moot in view of the new ground(s) of rejection due to applicant's amendment of claims 1, 7, and

9 and the addition of new claim 11. See new grounds of rejection below.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
> in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
> patent by another filed in the United States before the invention by the applicant for patent, except that an
> international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
> subsection of an application filed in the United States only if the international application designated the United
> States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1-9 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Kuwata et

al. (6,392,759).

Regarding claim 1: Kuwata et al. disclose edge detecting means (Fig. 1, image processor 20)

for determining the presence/absence of an edge at each pixel of input data (Fig. 1 and col. 9, ln.

65 through col. 10, ln. 4) and detecting a position of the edge at each pixel (col. 10, ln. 5-12);

selecting means (Fig. 1, image processor 20) for selecting a weighting matrix corresponding to

the position of the edge of each target pixel determined to have an edge by said edge detecting

means (Fig. 1, image processor 20) (Figs. 9-10, and col. 10, ln. 25-47 and col. 13, ln. 28-37 and

ln. 51-63); enhancement range determining means (Fig. 1, image processor 20) for determining,

using said weighting matrix (Figs. 9-10, and col. 10, ln. 25-47 and col. 13, ln. 28-37 and ln. 51-

63), a range of edge enhancement (see equation 8, col. 12, (Eenhance*(Y-Yunsharp))) of each

said target pixel determined to have an edge (col. 12, ln. 50-67); and edge enhancing means (Fig. 1, image processor 20) for executing an edge enhancement process on data of object pixels within the enhancement range determined by said enhancement range determining means (Fig. 1, image processor 20) (Figs. 13-14 and col. 12, ln. 35-55).

Regarding claim 2: Kuwata et al. satisfy all the elements of claim 1. Kuwata et al. further disclose wherein said enhancement range determining means (Fig. 1, image processor 20) increases the weighting of components corresponding to the interior side of the edge in the weighting matrix (Fig. 19, and col. 14, ln. 29-63).

Regarding claim 3: Kuwata et al. satisfy all the elements of claim 1. Kuwata et al. further disclose wherein said edge detecting means (Fig. 1, image processor 20) determines the edge to be between pixels (Fig. 8 and col. 10, ln. 5-39).

Regarding claim 4: Kuwata et al. satisfy all the elements of claim 1. Kuwata et al. further disclose wherein said enhancement range determining means selects the weighting matrix based on the presence/absence of an edge in four direction surrounding the target pixel (Fig. 8 and col. 10, ln. 5-42).

Regarding claim 5: Kuwata et al. satisfy all the elements of claim 1. Kuwata et al. further disclose wherein said edge enhancing means (Fig. 1, image processor 20) executes processing based on the hue and chroma of the pixels surrounding the object pixel (Fig. 1 and col. 9, ln. 65-67 and col. 10, ln. 1-23 and ln. 35-39).

Regarding claim 6: Kuwata et al. satisfy all the elements of claim 1. Kuwata et al. further disclose wherein said edge enhancing means executes processing based on the distance of the object pixel to the target pixel (Fig. 16 and col. 11, ln. 14-31 and Fig. 7 and col. 12, ln. 11-34).

Regarding claim 7: The structural elements of apparatus claim 1 perform all of the steps of

method claim 7. Thus, claim 7 is rejected for the same reasons discussed in the rejection of

claim 1.

Regarding claim 8: Kuwata et al. satisfy all the elements of claim 7. The structural elements of

apparatus claim 2 perform all of the steps of method claim 8. Thus, claim 8 is rejected for the

same reasons discussed in the rejection of claim 2.

Regarding claim 9: Arguments analogous to those stated in the rejection of claim 1 are

applicable. A recording medium that stores computer executable programs in inherently taught

as evidenced by computer main body 21 and various memories stored therein.

Regarding claim 11: Kuwata et al. disclose an edge detector (Fig. 1, image processor 20) for

determining the presence/absence of an edge at each pixel of input data (Fig. 1 and col. 9, ln. 65

through col. 10, ln. 4) and detecting a position of the edge at each edge pixel (col. 10, ln. 5-12); a

selector (Fig. 1, image processor 20) for selecting a weighting matrix corresponding to the

position of the edge of each target pixel determined to have an edge by said edge detecting

means (Fig. 1, image processor 20) (Figs. 9-10, and col. 10, ln. 25-47 and col. 13, ln. 28-37 and

ln. 51-63); and a controller (Fig. 1, image processor 20) configured to determine, using said

weighting matrix (Figs. 9-10, and col. 10, ln. 25-47 and col. 13, ln. 28-37 and ln. 51-63), the

range of edge enhancement (see equation 8, col. 12, (Eenhance*(Y-Yunsharp))) of each said

target pixel determined to have an edge (col. 12, ln. 50-67); said controller (Fig. 1, image

processor 20) further configured to execute an edge enhancement process on data of object pixels

within the enhancement range determined by said enhancement range determining means (Fig. 1,

image processor 20) (Figs. 13-14 and col. 12, ln. 35-55).

Conclusion

4.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this
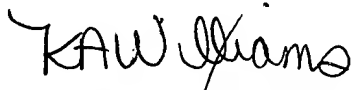
final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Charlotte M. Baker whose telephone number is 571-272-7459.

The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kimberly A. Williams can be reached on 571-272-7471. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CMB

KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER